

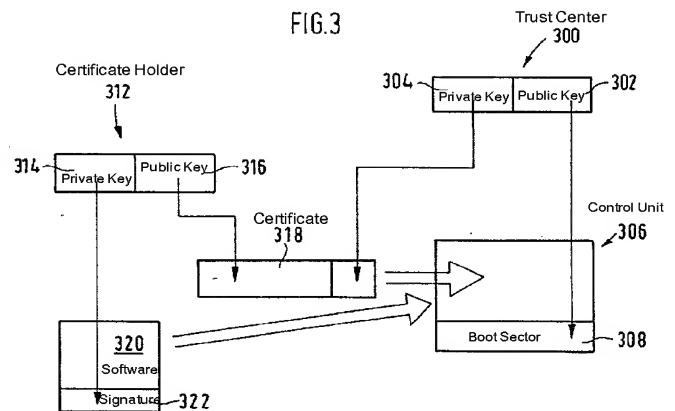
key 103 of trust center 101 and public key 108 of software signature site 105, and including public key 108 of software signature site 105, a signature 121 generated by trust center 101 and one or more validity restrictions.

Accordingly, each of these certificates 116, 118, and 120 are disclosed as distinct types of certificates.

The rejection of the claims appears to ignore the distinction between the different types of certificates, and instead interprets different versions of the same type of certificate as disclosing the three certificates discussed above.

Schmidt discloses a technique that involves a single type of certificate for accessing or modifying the software of a vehicle control unit.<sup>1</sup> The certificate includes a public key and additional certificate information such as the "certificate issuer, the serial number, the certificate holder, certain access rights or the validity period."<sup>2</sup> The manner of generating the certificate will now be described in connection with

the Fig. 3 of Schmidt (reproduced on the right).<sup>3</sup> Certificate 318 is generated using public key 316 of certificate holder 312 and private key 304 of trust center 300. Software 320 is signed by private key 314 of certificate holder 312, and the signed software and certificate are stored in control unit



306. Schmidt discloses that the certificate holders are dealers that install software in the control units 306 of vehicles.<sup>4</sup>

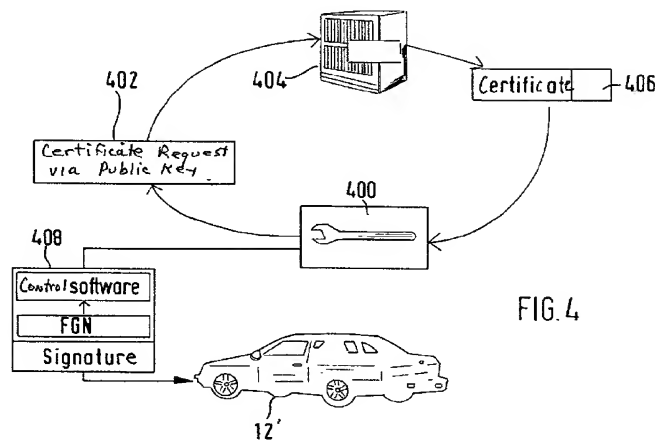
<sup>1</sup> Although the Reply filed on September 6, 2011, stated that Schmidt discloses two types of certificates, upon further review it is clear, as set forth in the discussion in this Reply, that Schmidt discloses a single type of certificate.

<sup>2</sup> Paragraph 0053.

<sup>3</sup> The figure is annotated to include text labels.

<sup>4</sup> Paragraph 0050.

Referring now to Fig. 4 of Schmidt (reproduced below), in order to generate the certificate, a dealer 400 (referred to as a “shop”) generates its own private/public key pair, sends its public key to trust center 404.<sup>5</sup> Trust center 404 generates certificate 406, which is signed by its own private key and sends the signed certificate to the dealer 400.<sup>6</sup> Dealer 400 can then use the certificate to sign software 408, which can then be imported into the control unit.<sup>7</sup>



As is clear from the disclosure of Schmidt, certificate 318 of Fig. 3 is the same type of certificate as certificate 406 of Fig. 4. Thus, Schmidt discloses only a single type of certificate, which is used for allowing authorized parties to generate software that can be installed in vehicle control units.<sup>8</sup>

In contrast to Schmidt's disclosure of a single type of certificate, claim 1 clearly recites two distinct types of certificates, a software signature certificate and “one of a control entity certificate and a trust center certificate.” Thus, Schmidt's disclosure of a single type of certificate does not anticipate the two different types of certificates recited in claim 1.

<sup>5</sup> Paragraph 0059.

<sup>6</sup> Paragraph 0060.

<sup>7</sup> Paragraph 0061.

<sup>8</sup> Paragraph 0050.

The rejection of claim 1 cites paragraph 0012 of Schmidt for the disclosure of the software signature certificate and paragraph 0019 as disclosing “one of a control entity certificate and a trust center certificate.”<sup>9</sup> The cited paragraphs describe the same type of certificate, namely the single type of certificate disclosed in the Detailed Description section of Schmidt. Thus, these two paragraphs do not disclose the two different types of certificates recited in claim 1.

The Response to Arguments section correctly notes that Schmidt discloses that the system can use multiple certificates, but does not explain why these multiple certificates that are the same type of certificates disclose the two different types of certificates recited in claim 1. Rather, the Response to Arguments section improperly combines Schmidt’s disclosure with the discussion of the prior art to support the rejection. Specifically, the Response to Arguments section cites paragraphs 0017 and 0018 (which describe the invention of Schmidt) for the disclosure of the software signature certificate, and cites paragraphs 0007 and 0008 (which describes prior art authentication processes and systems) for the disclosure of the control entity or trust center certificate. First, an anticipation rejection requires the disclosure of the exact arrangement as claimed in a single embodiment, and thus combining the invention of Schmidt in paragraphs 0017 and 0018 with the prior art discussed in paragraphs 0007 and 0008 is improper. Moreover, paragraphs 0007 and 0008 of Schmidt do not discuss certificates. Accordingly, combining the disclosures of paragraphs 0007, 0008, 0017, and 0018 of Schmidt would at best result in the disclosure of a single type of certificate and not two different types of certificates as recited in claim 1.

Additionally, the Response to Arguments section selectively cites to Applicant’s specification when the disclosure allegedly supports the rejection but does not recognize that

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<sup>9</sup> Pages 7-8.

the specification clearly discloses that the software signature certificate and “one of a control entity certificate and a trust center certificate” are distinct types of certificates. If Applicant’s claims are going to be interpreted in view of the specification, as they should be, the interpretation should view Applicant’s disclosure as a whole and not just the portions that allegedly support the rejection.

Moreover, the citations to Applicant’s specification do not support the rejection. For example, the Response to Arguments section cited paragraph 0021 of the present application for the disclosure that the software signature site is the manufacturer of the software and of the control unit. Although this is an accurate characterization of the cited section of Applicant’s specification, Schmidt discloses that the certificate is generated for a dealer or shop, which can generate the software. Schmidt, however, does not disclose that the dealer or shop is also the manufacturer of the control unit. Thus, it is unclear why paragraph 0021 of Applicant’s specification is being cited.

The Response to Arguments section also mischaracterizes Applicant’s disclosure. For example, it states that “paragraphs [0007], [0008] discloses that the trust center (or control *unit*) certificate utilizes the secret key of the control *unit* as a signature key.”<sup>10</sup> Paragraph 0007 actually equates the trust center and control *entity*, and Applicant’s specification clearly distinguishes between the control *entity* and the control *unit*, i.e. the control entity is the trust center and the control unit is located within the vehicle and controls a vehicle function. Thus, the remainder of the second full paragraph of the Response to Arguments section discussing a secret key of the vehicle control *unit* is not relevant to claim recitation of “the secret key of the control entity” recited in Applicant’s claim 1.

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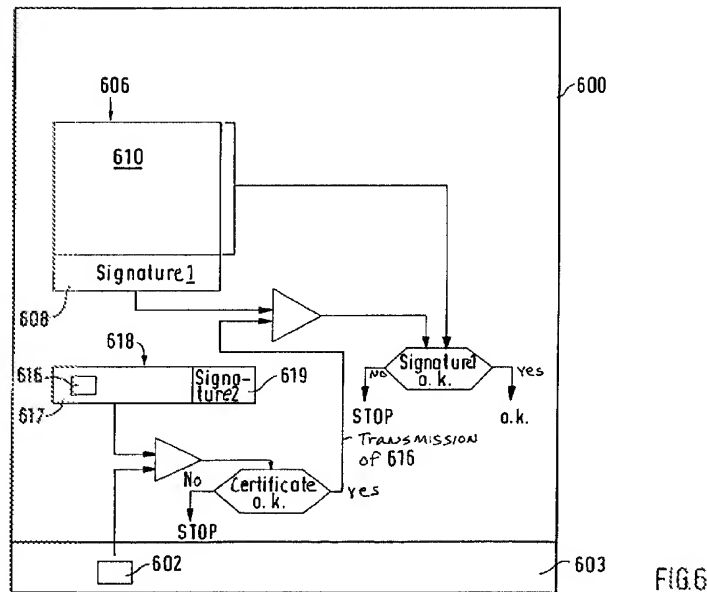
<sup>10</sup> Page 3. (Emphasis added).

Because Schmidt discloses a single type of certificate and Applicant's claim 1 recites two different types of certificates, Schmidt cannot anticipate claim 1.

Schmidt does not anticipate claim 7 because Schmidt does not disclose a control unit that stores:

1. a clearing code site signature certificate,
2. a software signature certificate,
3. clearing code data and their signature, and
4. the software and its signature.

As discussed above for claim 1, Schmidt discloses a single type of certificate. Indeed, Fig. 6 of Schmidt (reproduced below) illustrates that control unit 600 only stores certificate 618.



Thus, there is no express or inherent disclosure in Schmidt that control unit 600 stores the two certificates recited in claim 7, and accordingly Schmidt cannot anticipate this claim.

Claim 19 recites that the control unit stores three different types of certificates, i.e., a trust center certificate, clearing code site certificate, and software signature certificate. Because Schmidt discloses that control unit 600 stores only a single type of certificate, Schmidt cannot anticipate claim 19.

Claims 4-6, 8, 9 and 12-18 are patentably distinguishable over Schmidt at least by virtue of their dependency.

Accordingly, it is respectfully requested that the rejection of claims 1, 4-9, and 12-19 for anticipation by Schmidt be withdrawn.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323, Docket No. 080437.53236US.

Respectfully submitted,

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